

**NESOMIA CHIAPENSIS (ASTERACEAE - EUPATORIEAE), A NEW GENUS
AND SPECIES FROM MÉXICO**

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ABSTRACT

Nesomia chiapensis, a new genus and species from Chiapas, México, is described and illustrated. Because of its conical, paleaceous receptacle, it is believed to be most closely related to the monotypic Peruvian genus *Ferreyella* S.F. Blake (subtribe Ageratinae, sensu King & Robinson).

KEY WORDS: Asteraceae, Eupatorieae, *Nesomia*, México

Routine identification of Mexican Asteraceae has revealed the following novelty.

Nesomia chiapensis B. Turner, *gen. et sp. nov.* Fig. 1. TYPE: MÉXICO. Chiapas: "between Cañada Honda (1300 m) to El Triunfo (2100 m), along southern slopes Sierra de Soconusco to crest . . .", reportedly growing in "moist shaded areas", 6 Nov 1945, *E.H. Xolocotzi & A.J. Sharp X-366* (HOLOTYPE: NY!).

*Ferreyellae peruviana*e S.F. Blake similis sed differt habitu robustiore (usque ad 1.5 m alto), foliis plerumque oppositis, capitulescentia pluricephala congesta ac paniculati-corymbosa, bracteis involucri 2-nervatis, et ramis styli linearibus.

Perennial (?) herbs to 1.5 m high. Stems terete, puberulent to glabrate. Leaves opposite, 10-15 cm long; petioles 3-5 cm long; blades thin, ovate to deltoid, glabrous or nearly so, the primary nerves 3-5, arising from the base, these weakly dichotomously branched above, the margins coarsely serrate. Heads eradiate, arranged in congested, terminal, paniculate corymbs, the ultimate peduncles puberulent, mostly 1-3 mm long. Receptacles conical, paleate, 1.5-2.0 mm high, ca. 0.75 mm wide, the pales well developed and grading into

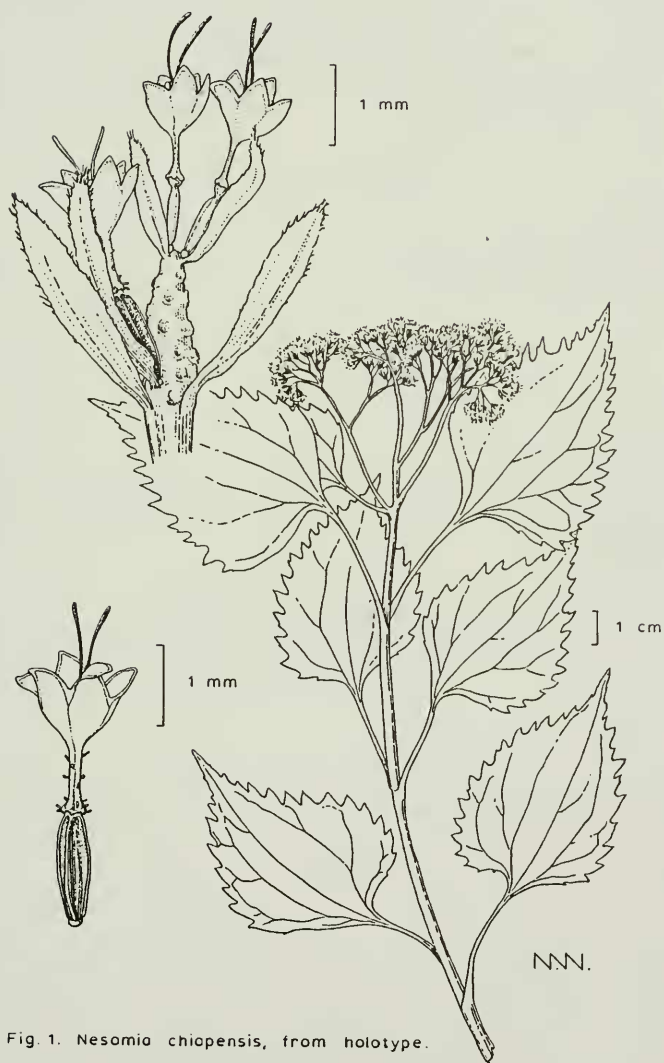


Fig. 1. *Nesomia chiapensis*, from holotype.

the involucre bracts. Involucres campanulate, 2.5-3.5 mm high, the bracts oblanceolate, subequal, glabrous, ribs 1-2(-3), these well developed, the margins ciliate. Florets perfect, 12-14 per head. Corollas light purple (according to label data), ca. 2 mm long, the tube ca. 0.75 mm long, pubescent with both glandular and nonglandular hairs, the limb ca. 1.25 mm high, the throat broadly flaring, the lobes somewhat irregular, 0.5-0.6 mm long. Anthers ca. 0.6 mm long, the appendages abortive or much reduced, wider than long, the endothecial walls with subquadrate cells having nodular thickenings, the collar linear with more or less ornate cells. Style branches linear, ca. 1.5 mm long. Achenes epappose, 4-5 ribbed, glabrous, ca. 1.5 mm long, having a well defined apical callous upon which the corolla tube sits flush, the carpodium a sharply differentiated callous nubbing.

In King & Robinson (1987) the species will key to the genus *Ferreyella* S.F. Blake, an Andean genus from Perú positioned in their subtribe Ageratinae. *Ferreyella* contains but a single species, *F. peruviana* S.F. Blake (including *F. cuatrecasasii* R.M. King & H. Robinson). *Ferreyella* has receptacular, floral, and fruit characters of *Nesomia*, including conical markedly paleaceous, receptacles. *Nesomia* is readily distinguished, however, by its habit (robust opposite leaved herbs to 1.5 m high with many headed corymbose paniculate cymes; vs. delicate, mostly alternate leaved, annual herbs to 0.3 m high with few headed cymules, nervate involucre bracts, and weakly papillose, linear, stylar appendages).

Among North American genera of the Eupatorieae, *Nesomia chiapensis*, with its chaffy, markedly conical receptacle is an exceptionally distinct taxon. Its habit, capitulescence, and eximbricate involucre resemble those of the genus *Ageratina* (subtribe Oxylobinae), but floret structure, especially the small, nearly exappendiculate anthers (as noted above) suggest that its closest relationship is with *Ferreyella*.

King & Robinson (p. 17) note that the relatively few markedly paleaceous species of the tribe Eupatorieae are "rarely closely related to each other", which is true. They further comment, however, that paleaceous forms "seem to represent an erratic capacity in the Eupatorieae for revival of this suppressed structure." In the case of *Ferreyella* and *Nesomia*, however, I would argue that the strongly conical receptacle with persistent pales that grade into the involucre bracts, is relictual. This view is consistent with the chloroplast DNA restriction site analyses (Kim *et al.* 1989) which place the tribe Eupatorieae as a clearly defined subset that clusters *within* the tribe Heliantheae (*sensu lato*), most members of which possess paleaceous receptacles. In short, receptacular pales in the Eupatorieae appear to have persisted in various phyletic lines of the tribe, these not arising *de nova* as sporadic appendages in an otherwise epaleate tribe as envisioned by King & Robinson, who would position the Eupatorieae as "primitive" or ancestral to the tribe Heliantheae. To quote them directly (p. 15), "the [phyletic] point of departure of the Eupatorieae

is believed to be below the point of divergence of the Heliantheae from the remaining [subfamily] Asteroideae, and close to the point of divergence of the Asteroideae and [subfamily] Cichorioideae.”

It is a pleasure to name this remarkably distinct genus for my colleague and peer, Dr. Guy Nesom, Curator of the University of Texas, Austin herbaria (LL, TEX), and unexcelled doyen of the tribe Astereae in North America.

ACKNOWLEDGMENTS

I am grateful to Dr. Guy Nesom for the Latin diagnosis, and to him and Dr. Andrew McDonald for reviewing the manuscript. Nancy Webber provided the illustration.

LITERATURE CITED

- Kim, K.-J., R.K. Jansen, B.L. Turner, T.J. Mabry, G. Nesom, & J. Norris. 1989. Phylogenetic implications of chloroplast DNA restriction site variation in the tribe Heliantheae (Asteraceae). *Amer. J. Bot.* (suppl.) 76:252.
- King, R.M. & H. Robinson. 1987. *The Genera of the Eupatorieae (Asteraceae)*. Monographs Syst. Bot., Missouri Bot. Gard. 22:1-581.